

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Brian C. Barnes, et al

Serial No.: 09/901,531

Filed: July 9, 2001

For: SOFTWARE MODEM WITH HIDDEN
AUTHENTICATION COMMANDS

Confirmation No.: 7123

Examiner: C. Brown

Group Art Unit: 2134

Att'y Docket: 2000.054600

Customer No. 023720

REPLY BRIEF

Mail Stop Appeal Brief – Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby submit this Reply Brief to the Board of Patent Appeals and Interferences in response to the Final Office Action dated June 16, 2006 and the Examiner's Answer dated December 5, 2006.

No fee is believed due, however, the Assistant Commissioner is authorized to deduct any fees required under 37 C.F.R. §§ 1.16 to 1.21 from the Williams, Morgan & Amerson, P.C. Deposit Account No. 50 0786/2000.054600.

The claimed subject matter, as set forth in independent claims 1, 12, and 21, includes the general features of Applicants receiving digital data over a communications channel, extracting control codes from the digital received signal, generating an authentication code based on at least one extracted control code, transferring the control codes and the authentication code to a physical layer hardware unit of the transceiver, configuring assigned transmission parameters of the physical layer hardware unit based on the control codes, and signaling a security violation in response to the control codes being inconsistent with the authentication code.

As admitted by the Examiner, Roeck is completely silent with regard to the use of authentication codes or determining security violations. The combination of Roeck and Nay fails to teach all features of the claimed subject matter. Roeck receives control codes in a RNG-RSP message from a remote party. Roeck simply does not contemplate that the control codes in the received message could be corrupted in any way between the extraction of the control codes and the configuring of the physical layer hardware unit. The same processing unit that receives the codes and extracts the code from the RNG-RSP message configures and operates the functions of the cable modem. Hence, with respect to claims 1, 12, and 21, there is no transfer of the control codes to the physical layer hardware unit after they are extracted from the digital received signal. Moreover, with respect to claim 1, Roeck does not employ a software driver that is distinct from the physical layer that extracts the control codes and transfers them to the physical layer hardware unit. Roeck discloses a dedicated hardware cable modem that does not employ a software driver.

The Examiner alleges that Nay describes generating an authentication code. In combining Roeck with Nay, the Examiner also contends that a security violation is any change in the date communicated regardless of reason. Hence, there is no motivation to combine Roeck and Nay because Roeck does not teaching transferring the extracted control codes to the physical layer hardware unit. Roeck does not contemplate any kind of data error, regardless of cause, as there is no transfer. The only grounds for combining Roeck and Nay provided by the Examiner is to improve data integrity. In Roeck there is simply no need for additional data integrity as the processor that extracts the control codes also implements them.

Because the combination of Roeck and Nay fails to teach each and every element of the claimed invention, and the Office has failed to meet its burden of providing motivation to combine Roeck and Nay based on grounds found in the prior art, the *prima facie* case of

obviousness is deficient. Accordingly, claims 1, 12, 21, and all claims depending therefrom are allowable. Applicants respectfully request the rejection of these claims be reversed.

Respectfully submitted,

Date: February 5, 2007

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